



The Regional Municipality of Durham  
Report to: The Joint Works and Finance & Administration  
Committee  
From: C.R. Curtis, Commissioner of Works  
R.J. Clapp, Commissioner of Finance  
Report No.: 2011-J-22  
Date: February 24, 2011

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**SUBJECT:**

The 2011 Annual Solid Waste Management Servicing and Financing Study

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**RECOMMENDATIONS:**

THAT, consistent with the Durham Region Strategic Plan 2009-2014, the approved budget guideline, and the recommended 2011 Solid Waste Management Business Plans and Budgets, the Joint Works and Finance and Administration Committee recommend to Regional Council the following:

**1. 2011 Regional User Fees and Charges**

The Regional Fees and Charges schedule for 2011 Solid Waste Management Operations, per Attachment #1, be approved and form part of the annual Regional listing of Fees and Charges made available to the public, including the following change as directed in late 2010, to encourage electrical and electronics waste diversion, and ensure proper disposal of these materials:

- i) Based upon 100 per cent Waste Diversion Ontario (WDO) subsidy program requirements, separate loads of 100 per cent Waste Electronics and Electrical Equipment (WEEE) diversion materials be accepted free-of-charge at the Region's Waste Management Facilities (WMFs) located in the Townships of Scugog and Brock and the City of Oshawa.

**2. Solid Waste Diversion: Increasing Reuse Opportunities**

Staff be authorized to enhance reuse materials' drop-off areas at the Region's existing Waste Management Facilities (WMFs) located in the Townships of Brock and Scugog and the City of Oshawa, through the following initiatives:

- i) Reorganization of the Region's existing WMFs be approved to increase the areas available for the drop-off of new reuse materials, at a total cost of up to \$90,000 to be financed from the 2011 Solid Waste Management capital budget, primarily to purchase additional equipment (e.g. bins) and associated site modifications.

- ii) Staff be authorized to procure and execute partnership contracts through a Request for Proposals (RFP) process in order to partner with local community charitable and/or non-profit organizations which are in the business of collecting reusable waste items (e.g. demolition/construction materials, textiles), including entering contractual arrangements to safely and effectively provide for Regional drop-off locations for their re-useable items at the WMFs.
- iii) The Commissioner of Finance be authorized to negotiate a five-year sole source contract with Grace Canada Inc. of the Town of Ajax, to continue under the same terms and conditions as the existing pilot contract to collect separated expanded polystyrene from the Region's WMFs.

### **3. Solid Waste Diversion: Increasing Recycling Opportunities**

- a) Including review of options, implementation plans, timing, costs, potential locations, synergies and diversion potential, Regional staff be authorized, at a cost not to exceed \$500,000 financed from the 2011 Solid Waste Management Budget, to issue and award a 2011 Request for Proposals to secure a consultant to investigate future implementation of a standardized Regional eco-station facility to provide for a depot-style collection point(s) accepting diversion-only materials (no garbage waste) and with a report back to the Joint Committee to include the provision of feasibility and business case analysis.
- b) Works and Finance staff finalize a due diligence review of available end-use markets and operational and equipment design and lay-out options for plastic food and beverage containers with resin codes numbered three to seven (food clamshells and trays), at a cost not to exceed \$100,000 and authorization to undertake the following actions:
  - i) In 2011, the Commissioner of Finance, in consultation with the Commissioner of Works, issue an RFP and award a contract to a suitable consultant, in consultation with the Commissioner of Works, in order to conduct a preliminary assessment/feasibility study of various operational and equipment design and layout options to process number three to seven plastics at the Region's existing Material Recovery Facility (MRF) in Whitby;
  - ii) Subject to the findings in i) above, make a formal application to the Waste Diversion Ontario (WDO) Continuous Improvement Fund (CIF) to secure CIF funding for the cost of equipment modifications at the Region's MRF to enable processing of number three to seven plastics;
  - iii) The Commissioner of Finance commence negotiations with the Region's current MRF operations contractor, Metro Municipal Recycling Services Inc. (MMRSI), with the Commissioner of Works, to resolve any operational or financial impacts associated with the potential introduction of number three to seven plastics to the Region's Blue Box program in 2011;

- iv) Depending upon the results and subject to an unfavorable outcome of negotiations with MMRSI, the Commissioner of Finance, in consultation with the Commissioner of Works, be authorized not to exercise any of the three available one-year contract extension options with MMRSI, beyond the original 5 year contract term ending in 2012, and further, that the Commissioner of Finance be authorized to initiate a suitable procurement process to obtain a new MRF processing contractor commencing at the end of the existing five-year term, and including processing requirements for additional new Blue Box materials; and,
- v) Prior to implementation of the expanded Blue Box program including number three to seven plastics, staff provide a full report to Council on the operational, financial and promotional implications and communications strategies required to complete this potential Blue Box expansion.
- c) Regional Finance and Works staff be authorized to enter into a partnership agreement with the Provincial Government's Ontario Electronic Stewardship (OES) provided there is no cost to the Region, to develop and execute 2011 pilot projects, and evaluate the operational logistics, acceptance and financial and diversion implications from a new multi-residential unit waste electrical and electronic equipment (WEEE) recycling collection program (see the OES letter included as Attachment #2), and residential curbside collection of WEEE, with full reporting of the pilot results to Joint Committee and Regional Council.
- d) Works and Finance staff be authorized to apply for, and if successful, execute applicable agreements to receive 100 per cent funding from the Continuous Improvement Fund (CIF) of Waste Diversion Ontario to develop and test reverse vending machine event greening initiatives, which could include the acquisition of three reverse vending machines at no net cost to the Region, to be utilized under staff supervision at special waste events and report back to Joint Committee and Regional Council on the project.

**4. Service Standardization, Uniform Waste Tax Rates and the New Regional Waste By-law**

Consistent with previous directions to standardize solid waste management services and implement the phase-in of uniform property tax rates based on weighted assessment, and based on 2009 and 2010 consultations with stakeholders, the Regional Solicitor be requested to prepare a by-law to establish and maintain a system for the collection and disposal of waste in the Regional Municipality of Durham, subject to the final review and approval of the by-law by the Commissioners of Works and Finance and based upon the highlights included as Attachment #3 as well as the following:

- i. Standardized service levels for Regional waste collection services based on existing services, and focusing on the core mandate of providing curbside residential waste collection service, including,

- Garbage bag limits for curbside collection of waste (4 bag bi-weekly limit Region-wide);
  - Roles and responsibilities of contractors, the Region and clients;
  - Special provisions for families with small children and special needs; and,
  - Penalties for non-compliance.
- ii. Technical and financial parameters for the provision of Regional waste collection services to residents and a formal process for requests for service that promote transparency, clarity and efficiency, including,
- Eligibility requirements, formal applications and process to receive waste services on private properties (refer to Appendix 1 of Detailed Report for Technical and Risk Management Guidelines for Waste Collection Services on Private Property in Detailed Report on CD); and,
  - Diaper and Medical provision guidelines, application and process.
- iii. Documented service level standards for waste collection and the safe operation of standardized services at the Region's Waste management facilities.

## **5. Other**

- a) Regional staff be authorized to issue and award a RFP to retain a consultant at a cost not to exceed \$150,000 funded from the 2011 Solid Waste Management Budget, to assist in the preparation of options and business case analyses, regarding optimization of the Region's 4600 Garrard Road solid waste management facility in the Town of Whitby, including goals to maximizing diversion opportunities and efficiencies and control over processing, transfer and/or Regional haulage operations, with a report back to Regional Council with results and recommendations in 2011.
- b) Works and Finance staff be authorized, as part of a larger study of corporate green energy opportunities to be reported in March 2011, to procure a consultant in 2011, at a cost not to exceed \$50,000, in order to conduct a strategic assessment/pre-feasibility study of options to utilize anaerobic digestion technology to produce useful energy, while allowing for the diversion of compostable materials with known health and safety issues (e.g. pet waste).
- c) The Regional Solicitor be authorized to prepare the requisite by-laws and Agreements and the Regional Clerk and Regional Chair be authorized to execute subject by-laws and agreements.

- d) The proposed Solid Waste Management 2011 Holiday Collection Schedules included in Attachment # 4 be received for information.
- e) Copies of this report be forwarded to the Region's eight Local Area Municipalities.

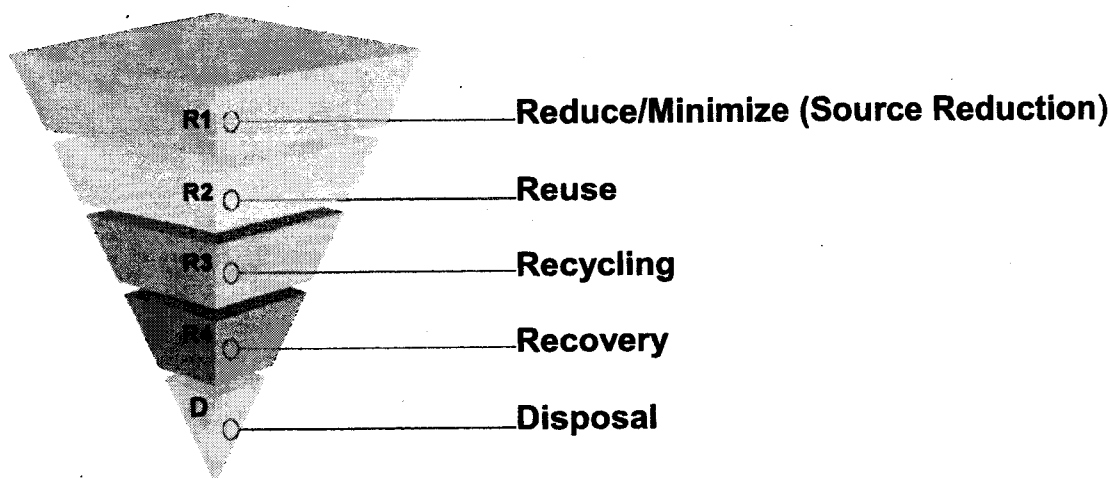
**List of Attachments**

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|-----------------------|--|
| <b>Attachment #1</b>  | <b>2011 Fees and Charges Schedule for Solid Waste Management</b>                                 |
| <b>Attachment #2:</b> | <b>Ontario Electronic Stewardship letter regarding WEEE recycling at multi-residential units</b> |
| <b>Attachment #3:</b> | <b>Regional Bylaw Highlights</b>   |
| <b>Attachment #4:</b> | <b>2011 Holiday Collection Schedules for information</b>   |
| <b>Attachment #5:</b> | <b>Projected 2010 Solid Waste Management Report (Tonnage) Summary – Table 1</b>                  |

## 1.0 HIGHLIGHTS

- This report provides an update and analysis of solid waste management programs, including results and analysis completed and underway on several new diversion measures approved and implemented during 2010. The report includes further recommendations for 2011, to continue diversion program plan implementation utilizing a phased approach within the constraints of Council approved budgetary guidelines.
- The Region strives to maintain sustainable waste management services utilizing best business and environmental practices. Goals of the waste management program include:
  - Support for reduced waste generation;
  - Materials' reuse programs and efficiencies;
  - Increased recycling and composting diversion;
  - Recovery of materials and energy from residual waste; and,
  - Reduced environmental impacts from waste disposal.
- These goals are reflected within the best practices approach demonstrated through the 4Rs Regional solid waste management hierarchy in the diagram below. The hierarchy emphasizes reducing the amount of waste entering the Regional waste stream, then maximizing the reuse and recycling of materials from the waste stream. The final stage involves maximizing the recovery of materials and energy, as part of disposal operations where the Region can control the disposal process.

### Solid Waste Management Hierarchy



- The Region's ongoing commitment to develop and fund the Region's integrated waste program, including expanded Blue Box, leaf and yard waste collections, a state-of-the-art materials recycling facility (MRF), and a fully implemented Green Bin curbside organics collection and processing program (completed in 2009) has led to achievement of the previous 50 per cent diversion from landfill target (2010 diversion was 52 per cent).

- Sights are now set on pushing beyond this significant milestone to achieve 70 per cent diversion.
- A preliminary waste diversion plan to 2015 is included herein, based on current analysis, knowledge and funds, and given anticipated partnership opportunities, including a growing provincial program meant to encourage diversion. The Province is implementing changes as it moves forward with programs to enhance producer responsibilities and increase funding from industry partners to municipalities to finance both operational and capital programs. The Region currently receives annual subsidies and grants, based upon best practices waste programs. A continuing goal of the planning process is to ensure leverage of available provincial funding for expanded diversion programs.
- Although a preliminary diversion plan is provided herein, it is important to note that this will be revisited annually through the Region's business planning process, with annual adjustments anticipated as Durham continues to measure results, challenges and successes, and strives to push Durham Region's diversion rate (from disposal) to 70 per cent.
- The 70 per cent diversion target will be challenging and can only be achieved through commitments to a combination of measures that will:
  - Create additional incentives for residents to divert additional waste materials;
  - Increase opportunities for residents to conveniently divert residual waste from disposal;
  - Partner with industry, government and institutional stakeholders to reduce the materials destined for disposal;
  - Educate and promote measures to reduce, reuse, recycle, and recover; and,
  - Enforce waste programs through the solid waste bylaw, including materials' bans and increasing bag tag fees for excessive waste.
- The Region is a leader with proven diversion programs already implemented Region-wide, and is committed to 70 per cent diversion from disposal. Durham Region is now embarking on uncharted territory. Not only are incremental diversion gains anticipated to come at a higher per unit diversion cost (in the absence of new funding), but many proposed measures have yet to be tested. Readjustments are anticipated as the Region moves forward consistently reviewing challenges and successes.

- Techniques on the enforcement side, while proven to increase diversion at a lower incremental cost, can also be very unpopular with residents, and can result in unwanted behavior, such as increased road-side dumping. While additional enforcement measures, including clear bags, reduced bag limits and bag tag requirements, are not being recommended in 2011, Council decisions on some of these measures may be required over the forecast period to achieve 70 per cent.

### **1.1 2011 Solid Waste Business Plan, Budget and Property Tax Impacts**

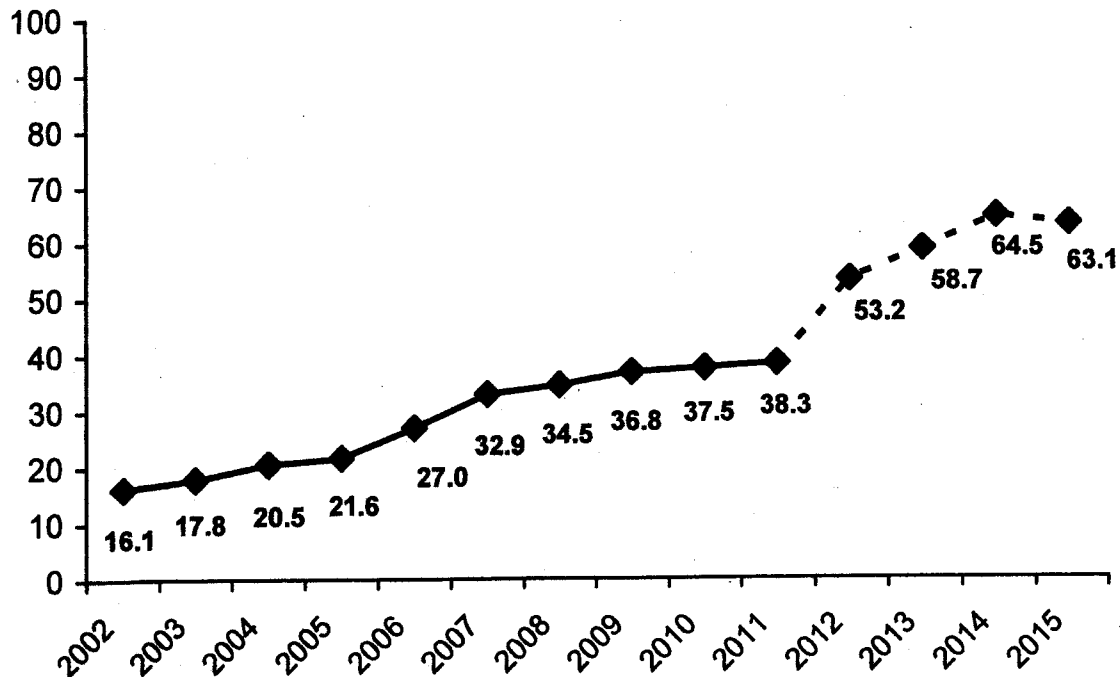
- The recommended 2011 Solid Waste Management Operating and Capital Budget (\$38.3 million) represents a \$0.866 million or 2.3 per cent increase compared to 2010, and includes base budget funding for existing programs, enhancements to support diversion and significant subsidy from the Waste Diversion Ontario. The recommended 2011 increase in net expenditures represents a Regional average property tax impact of approximately 0.2 per cent.
- Uniform solid waste property tax rates are fully phased to a weighted assessment methodology commencing in 2011. In 2011, the only remaining variance is between the six integrated solid waste management municipalities and the remaining two-tiered service municipalities, being the City of Oshawa and the Town of Whitby, where solid waste collection, excluding the Regional Blue Box program, are provided by the local area municipality.

### **1.2 Multi-year Business Planning: Achieving Higher Diversion**

- The chart following provides net solid waste management expenditures between 2002 and 2010. The most significant costs were due to uploaded collection responsibilities from six of the eight local area municipalities (between 2002 to 2004), and subsequent Region-wide expansions to curbside diversion collection and processing programs (e.g. expanded Blue Box and Green Bin program implementation), which resulted in the Region reaching a 2010 diversion rate of 52 per cent.
- Increasing the diversion target is the most significant budgetary pressure over the next five years. The achievement of 70 per cent diversion, including facilities, staffing, inspections, haulage, and processing to accommodate reuse and drop-off points could potentially increase operational costs by up to 20 per cent by 2015. Additional capital costs for diversion to 2015 are also currently estimated in the range of \$30 million, of a total \$48 million capital forecast.
- With major recycling and composting programs already in place, new diversion measures present diminishing marginal returns on investment, meaning smaller diversion increments are likely, and will be more costly on a per unit basis. Remaining materials within the residual waste stream are characterized by more involved and costly measures for ensuring extraction, processing and proper end-use, and are supported by fewer available markets for their reuse or resale.



**Solid Waste Management Net Budget Expenditures 2002 to 2011**  
**and Preliminary Forecast including Capital**  
**(2012 to 2015)**  
**(\$millions)**



- While net expenditures are forecast, annual updates will be provided as the Region moves forward through annual business planning cycles. Changes can be anticipated based upon provincial policies and regulations, compliance programs and subsidies, market revenue and tonnage fluctuations, technological advancements, partnerships, performance measurement and adjustments approved through business planning.
- Regional Works and Finance staff are committed to investigate opportunities and constraints around the implementation of the more significant Golder Associates Ltd. diversion proposals, servicing, risk and cost implications (see Report 2009-WR-5 included as Appendix 3 of Detailed Report on CD).

- Detailed staff investigations will ensure proposed diversion initiatives to attain 70 per cent meet the following Regional diversion principles:
  - Garner an acceptable level of support/participation from residents because initiatives are user-friendly, tolerable, and accessible;
  - Do not compromise the existing Regional integrated waste management system and its on-going diversion success;
  - Minimize contamination of valuable diversion materials and keep "problem materials" out of diversion waste streams;
  - Add new diversion materials only where a stable market exists for resale/reuse of the final product, ensuring efforts are not wasted on items destined for landfill;
  - Are compatible rather than competing initiatives to ensure maximum value and efficiency to taxpayers, with maximum utilization of existing Regional Solid Waste infrastructure; and,
  - Are consistent with the sound financial planning and best business practices of the Region, including business case reviews, financing, costs, revenues, and potential operational and environmental impacts.
- The following measures were approved and implemented during 2010:
  - One additional Blue Box "Big Blue" was provided to every household Region-wide, at a net budgeted cost to the Region of \$0.7 million, considering the \$1.63 million provincial subsidy (2010 budget) from the Continuous Improvement Fund (CIF), under the Waste Diversion Ontario (WDO) Blue Box program plan;
  - In consultation with the Region's eight local area municipalities, four new special waste events were implemented in 2010 to support increased diversion of Municipal Hazardous Solid Waste (MHSW) and waste Electronics and Electrical Equipment (WEEE); and,
  - Two pilot studies were launched at the Region's Oshawa waste management facility (WMF) to assess potential participation and diversion levels for polystyrene, mattress and upholstery recycling programs at the Region's WMFs.
- The depot drop off for mattresses and upholstered furniture recycling pilot did not result in any additional material being diverted, even given an absence of fees. Furthermore, the pilot program was deemed to have prohibitive processing costs. However, the success of the "Big Blue" distribution is anticipated to become clear over the coming months and staff anticipate an increase in Blue Box volumes over 2011. The distribution to 183,174 households was completed at the end of October 2010 and staff continue to monitor results of this major distribution program to increase recycling capacities.

- The four special waste events added during 2010 contributed to an additional 32 tonnes of MHSW and WEEE being collected will be continued in 2011 and beyond.

### **MHSW and WEEE Tonnages**

	2008 tonnes	2009 tonnes	2010 Tonnes
MHSW Events	34	67	81
WEEE Events	15	32	50

**Note:** These additional events were held in the Township of Brock (MHSW), Town of Whitby (WEEE), Town of Ajax (WEEE) and Municipality of Clarington (WEEE) during the spring and fall of 2010 at a total cost of \$14,395 for staffing and advertising and \$43,000 for disposal of HHW.

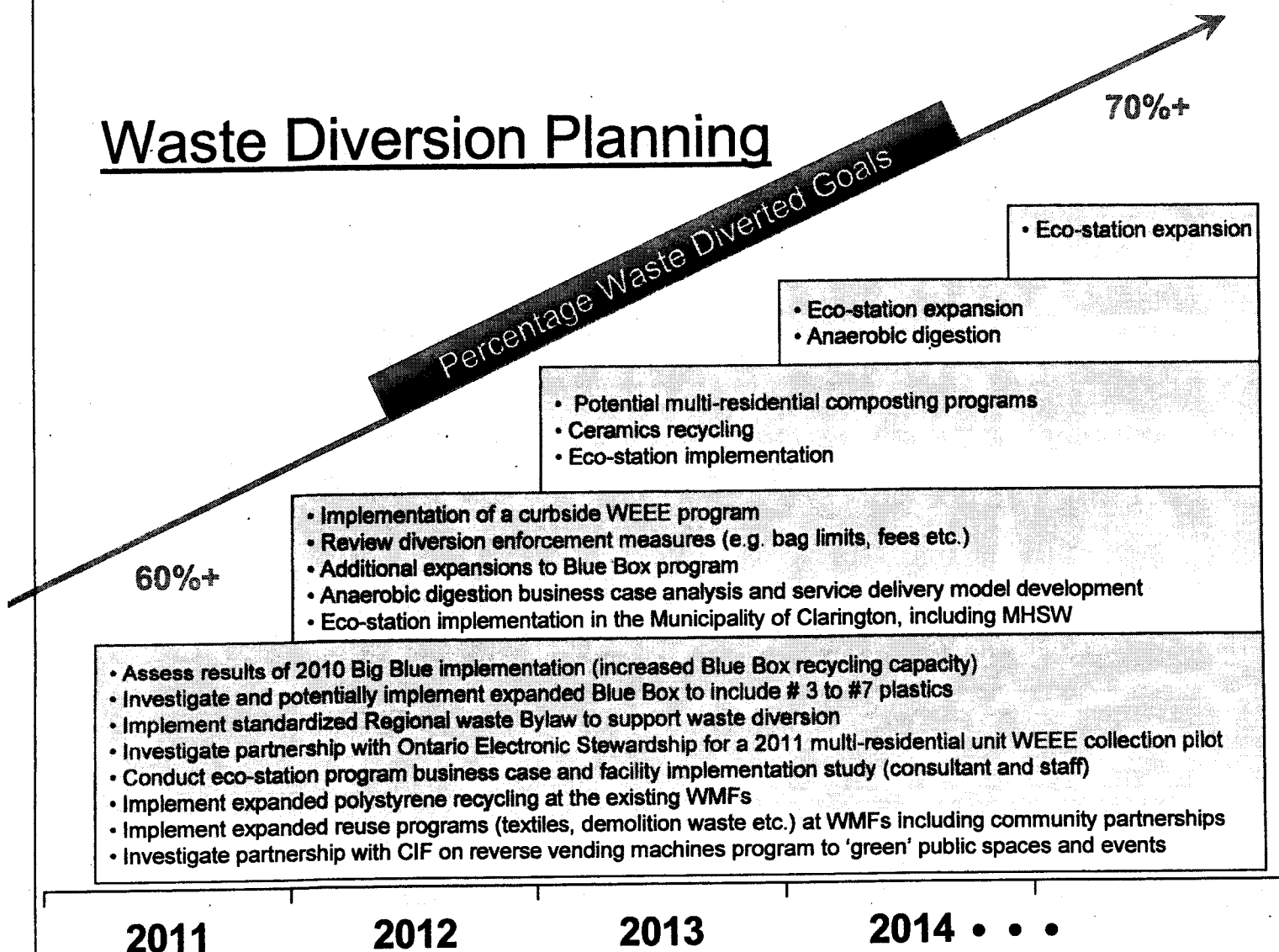
### **1.2.1 Diversion Pilots, Investigations and Planning**

- Staff developed a preliminary plan based upon the 2009 Golder Study to assist the Region in achieving the 70 per cent diversion rate (refer to Appendix 3 in Detailed Report on CD). This plan is revisited and updated annually through the Solid Waste Management Study and detailed Solid Waste Management Business Plans and Budget. The chart included within this section outlines the current plan consistent with recommendations herein.
- Based on studies recommended to be completed by staff and consultants during 2011, it is anticipated that future diversion tonnages could be significantly increased through facility expansions to include new standardized depot-style eco-station facilities strategically located, and which would only collect diversion materials (as opposed to existing facilities which also collect garbage waste). The environmental potential of these types of facilities will be further investigated, including business case analysis and an assessment of implications for other waste diversion programs and plans. Staff also continue to monitor the diversion results from the implementation in late 2010 of the "Big Blue, and associated increases in curbside diversion capacity. The results of this study may also have implications for plans going forward.
- A multi-residential WEEE collection pilot is recommended for 2011 in partnership with the Ontario Electronic Stewardship. This pilot will also be completed in collaboration with the Town of Whitby and the City of Oshawa. Durham's participation in Phase 2 of the WEEE Program Plan was expanded and as of November 2010, the Region began receiving dedicated loads of WEEE at all three of its existing Waste Management Facilities (WMFs) free-of-charge, based upon cost recovery subsidies provided through WDO for this program (see 2011 Fees and Charges Attachment #1). Also proposed for the future, staff are analyzing potential for a new multi-residential source separated organics program (SSO) for potential implementation in the 2013 to 2015 timeframe.

- It is also recommended herein that Finance and Works staff commence negotiations with the Region's current Material Recovery Facility (MRF) operations contractor, Metro Municipal Recycling Services Inc. (MMRSI), to resolve any perceived operational or financial impacts associated with the recommended introduction in 2011 of plastic food clamshells and trays (referred to herein as Number 3 to 7 plastics) to the Region's Blue Box program.
- Should there not be a favourable outcome to these negotiations it is recommended that no extension be given to MMRSI beyond the original five-year contract term ending 2012 and a procurement process be undertaken in 2011 to obtain a processing contractor for the MRF with pricing for new products to the blue box program, including, but not necessarily limited to plastic food clamshells and trays.
- The addition of the Number 3 to 7 plastics to Durham's Blue Box recycling program were not considered previously due to lack of markets, an issue which plagued other municipalities trying to divert and market these plastics. The Region would not pursue this addition to Blue Box without availability of two or more domestic end use markets, or an end use market with a stable operational history and financial security.
- Also undergoing preliminary analysis, an anaerobic digestion facility could potentially enable the processing of those organic items not currently accepted in existing compost programs due to issues of health and safety (e.g. pet waste, tissue). Staff of Works and Finance are currently investigating this potential 'green energy opportunity,' that could also contribute diversion. Herein it is recommended that staff be authorized to engage a consultant to conduct a strategic assessment/pre-feasibility study of options to utilize anaerobic digestion technology to produce useful energy, while allowing for the diversion of compostable materials with known health and safety issues (e.g. pet waste).
- Much of the focus of 2011 diversion programs is on the expansion of reuse and recycling opportunities at the Region's existing WMFs. Waste audits completed in recent years have consistently demonstrated that a significant portion of the waste brought to the Region's existing facilities could actually be diverted or reused, but goes to landfill because it is either too contaminated or is not properly separated by residents. The following initiatives are recommended in 2011 to enhance diversion, and are consistent with the 2011 budgetary guidelines set by Regional Council in January 2011. The 2011 recommendations include:
  - Implementation of a standardized waste collection Bylaw to support diversion measures Region-wide;
  - Reorganization of existing WMFs to support the expansion of reuse programs;

- Consulting costs to assist in development of options and business case analysis around optimization of the existing waste management facility at 4600 Garrard Road;
- Potential expansion of the Blue Box program to include additional plastics materials; and,
- Potential multi-residential unit and curbside waste electrical and electronics waste pilots in partnership with the Ontario Electronic Stewardship.

## Waste Diversion Planning



- A standardized Regional solid waste management bylaw is key to support future implementation and funding of standardized Region-wide diversion programs and has undergone significant consultations, including the eight local area municipalities. A goal of the Bylaw is to correct continued inconsistencies between local area municipalities that were perceived as an impediment to Region-wide focused diversion efforts and which ran counter to the 2011 full implementation of uniform system property tax rates.
- The Bylaw will conform to Regional Council approved waste and diversion collection standards, and wording is consistent with Regional Council direction to establish:
  - A standardized level of Regional waste collection service focusing on the Region's core mandate of providing residential waste collection service;
  - Appropriate parameters for service extensions to residences on private roads or private property, including gated communities, townhouses, multi-residential, mobile home parks and seasonal dwellings; and,
  - A workable and efficient Regional process for the submission of requests for service extensions that will provide operations staff, waste collection contractors and residents with greater clarity around Regional services.

### **1.3      Multi-year Business Planning: Landfill Monitoring and Remediation**

- Diversion program costs are in addition to other multi-year solid waste management expenditure priorities to 2015, including over \$10 million required to fund a comprehensive landfill remediation program and ensure environmental integrity and provincial compliance standards at the Region's six landfill sites (five closed sites including Oshawa, Blackstock, Darlington, Scugog, and Scott/Whitby, and the Brock Township Landfill which is to be operational until 2013).
- Regional staff have been working closely with the Ministry of Environment and the Region's consultant to achieve the objectives of the Remedial Action Plan (RAP) for Brock Township landfill. Key steps have included a land purchase, pilot leachate collection study and regular meetings with the Brock Landfill Public Liaison Committee. Examinations continue around contouring and landfill cover options and considerable cost savings have been identified over the original RAP. Furthermore, savings are anticipated in disposal costs over the short term as waste tonnages are diverted from landfill in New York to be utilized to contour the Brock landfill site. Actual volumes, timing and savings are to be determined as the preferred option is chosen.

- Costs related to the on-going monitoring, maintenance and capital remediation of existing Regional landfills are significant, including \$0.3 million of capital budgeted in 2011 for Brock Township Landfill. In addition to annual surface and groundwater monitoring, capital expenditures include the design and implementation of leachate systems, including systems planned for Brock and Oshawa landfills. Brock Township landfill remediation represents \$6.5 million (62 per cent) of the \$10.5 million capital program to 2015, primarily incurred over 2012 and 2013. Oshawa landfill represents \$1.5 million (14 per cent) to be incurred in 2013.
- Given stringent requirements of the MOE to continue with an aggressive diversion program, including strict waste flow control, the Region needs to review collection, transfer and haulage operations to ensure compliance. It is recommended that a consultant be retained at a cost not to exceed \$150,000 in order to assist in the preparation of options and business case analyses around the optimization of the Region's 4600 Garrard Road solid waste management facility in the Town of Whitby, including the goals of maximizing diversion opportunities and efficiencies and control over processing, transfer and/or Regional haulage operations, with a report back to Regional Council including results and recommendations in the Fall of 2011.

## 2.0 SOLID WASTE MANAGEMENT CAPITAL

- In addition to the capital funding required to support diversion program plans and landfill remediation programs as described above, the capital forecast also includes ongoing capital replacements for solid waste management facilities (equipment, repairs and replacements).

### Capital Forecast 2011 - 2015 (\$millions)

	2011	2012	2013	2014	2015	Total
Facilities and Equipment	0.8	2.2	1.0	0.8	0.8	5.6
Landfill Remediation Program	0.3	2.3	5.9	1.0	1.0	10.5
Facility Optimization Study	0.2	3.4	2.8	0.0	0.0	6.4
WMF Modifications/Ecostation Study	0.6	8.0	5.0	3.5	0.5	17.6
Plastics Recycling Program (MRF)	0.1	0.3	0.0	0.0	0.0	0.4
Anaerobic Digestion (Study in 2011)	0.1	0.3	0.3	4.0	4.0	8.7
<b>TOTAL CAPITAL</b>	<b>2.1</b>	<b>16.5</b>	<b>15.0</b>	<b>9.3</b>	<b>6.3</b>	<b>49.2</b>

**Note:** The Energy from Waste project is excluded from the table and is proceeding as per the project, expenditure and financing approvals received through Reports 2009-J-18 and Report 2009-COW-03 in 2009.

### 3.0 CONCLUSIONS

- The Region's Solid Waste Management accomplishments over the last five years have led to an award winning Region of Durham diversion program. Successes have resulted from the significant investments and commitments made by Regional Council over the previous decade.
- The residents of Durham Region also need to be congratulated for their ongoing commitment in participating in key source separated diversion materials programs. At over 80 per cent for Blue Box participation and over 60 per cent for the source separated kitchen organics program (i.e. Green Bin), our residents have made Durham a leading municipality in waste diversion in the Province of Ontario.
- Regional Council's commitment to the Regional Integrated Waste program, including expanded Blue Box diversion, a state-of-the-art materials recycling facility and a fully implemented Region-wide Green Bin curbside collection and processing program has led Durham Region to achieve and exceed the 50 per cent diversion target by 2007. Since 2003, Durham Region has increased its waste diversion from landfill from a rate of 31 per cent to 52 per cent in 2010. Sights are now set on going beyond this significant milestone to 70 per cent.
- This report includes recommendations necessary for the Region to move forward with the existing waste program, as well as progress towards 70 per cent diversion, within the constraints of the approved budget guideline.
- Recommendations and implementation plans will continue to be researched and (re)prioritized as required through the annual business planning process, which necessitates a balancing of affordability considerations with a focus on performance measurement and achieving desired results.

C.R. Curtis, P.Eng. M.B.A  
Commissioner of Works

R.J. Clapp, CA  
Commissioner of Finance

Recommended for Presentation to Committee:

G.H. Cubitt, MSW  
Chief Administrative Officer



**THE REGIONAL MUNICIPALITY OF DURHAM**  
**2011 FEES AND CHARGES**  
**WORKS DEPARTMENT - SOLID WASTE MANAGEMENT**

Description	Unit	Rate (excl GST)	GST Applicable (Y/N)	Invoice (I) / Direct charge (D)	Minimum Charge	Effective Date	Notes / Comments
<b>Blue Box Materials:</b> Newspapers, glass bottles and jars, cardboard, metal and aluminium food and beverage containers, all plastic bottles with a twist off top, metal paint cans, metal aerosol cans, milk, juice and drink containers, tubs and lids For loads of 100% Blue Box materials <u>only</u>	/ 1,000kg	\$120.00	N	D	N/A	July 1, 2007	Report No. 2009-J-1
<b>Household Hazardous Waste (HHW):</b> Oil and oil filters, paints, propane tanks, batteries, antifreeze, etc. For loads of 100% Household Hazardous Waste <u>only</u>		No Charge					Report No. 2009-J-1
<b>Waste Electronics and Electrical Waste:</b> For loads of 100% Waste Electronics and Electrical <u>only</u>		No Charge					Report No. 2010-WR-9
<b>Used Tires:</b> For loads of 100% Tires <u>only</u>		No Charge					Report No. 2009-WR-13
<b>Bale Wrap:</b> For loads of 100% Bale Wrap <u>only</u> Must be delivered clean and free of debris		No Charge					Report No. 2005-WR-26
<b>Waste Disposal:</b> General residential and commercial garbage waste a) For loads up to and including 50.00 kg the minimum charge is b) For loads over 50.00 kg	/ vehicle / load / 1,000kg	N/A \$120.00	N N	D D	\$5.00 N/A	July 1, 2007 July 1, 2007	Report No. 2009-J-1 Report No. 2009-J-1
<b>Mixed Loads:</b> For loads of Blue Box, HHW Material, Bale Wrap Tires and or Electronics and Electrical Wastes in the same load as other wastes	/ 1,000kg	\$120.00	N	D	N/A	July 1, 2007	Report No. 2009-J-1
<b>When scales are not in service:</b> A flat rate charge system will apply and staff will estimate the loads a) For loads up to and including 50.00 kg, except for loads of 100% Blue Box and/or 100% Household Hazardous Waste b) For loads estimated over 50.00 kg	/ vehicle / load / 100 kg	N/A \$12.00	N N	D D	\$5.00 N/A	July 1, 2007 July 1, 2007	Report No. 2009-J-1 Report No. 2009-J-1
<b>Recycling Depot:</b> Blue Box sales Green Bin sales Backyard Composter sales	each each each	Market price Market price Market price	N N N	D D D	N/A N/A N/A	N/A N/A N/A	Report No. 2009-J-1 Report No. 2009-J-1 Report No. 2009-J-1
<b>Integrated System:</b> Solid Waste Bag Tags (where bag limit is exceeded)	/ bag	\$1.50	N	D	N/A	May 1, 2003	Report No. 2009-J-1

January 6, 2011



Craig Bartlett  
Manager, Waste Operations  
Region of Durham  
605 Rossland Road East,  
Whitby, Ontario, L1N 6A3

**Re: Region of Durham Multi-Unit Apartment WEEE (Waste Electronic and Electrical Equipment) Collection Pilot**

Dear Craig,

It was a pleasure meeting with you and your staff on Thursday, December 16, 2010, to discuss a possible partnership with Ontario Electronic Stewardship (OES) to undertake a pilot project that will provide WEEE collection services to multi-unit apartment buildings.

As one of the leaders in municipal waste diversion in Ontario, we understand that the Region of Durham is actively seeking out new initiatives to recover and divert waste electronics from all residential sources. This pilot would provide OES and other municipalities in Ontario, valuable information on how to implement and increase waste electronic diversion from apartment buildings.

As discussed, OES is prepared to assist Durham with this project by providing revenues to the Region for every tonne of WEEE recovered through this initiative. Not only will this pilot divert material from landfill, it will also save the Region collection and disposal costs. Further, OES is pleased to offer collection, consolidation and processing of this material at no cost to the Region.

This is an exciting "pioneering opportunity" for both the Region of Durham and OES. As a leader in waste diversion programs, the Region will bring its successful program implementation skills. OES can provide both the technical and financial resources to ensure a successful pilot program and, it is hoped, a sustainable long-term Region-wide program.

From our conversation, I understand that you will still require approval to move forward with this pilot initiative. We will await feedback from your meetings and re-group to discuss further detail later this month. I look forward to hearing favourably about this pilot moving forward and would ask that you contact me directly to discuss our next steps.

Yours truly,

Laura Shippen  
Regional Operations Supervisor

P.O. Box 17022, 69 Yonge Street, Toronto, ON M5E 1S2

**Electronics  
Recycling**

**Safe. Secure.  
OES-Approved.**

**DURHAM REGION  
WASTE MANAGEMENT BY-LAW  
HIGHLIGHTS**

<b>SUBJECT</b>	<b>BY-LAW</b>
Curbside Collection	<ul style="list-style-type: none"> <li>• Sets collection schedule service levels               <ul style="list-style-type: none"> <li>○ Blue Boxes and Green bins collected weekly</li> <li>○ Residential Garbage collected every other week</li> <li>○ Other collections as per by-law schedules</li> </ul> </li> <li>• 4 Bag Garbage limit, max weight 20 kg per bag</li> <li>• Waste must be set out for collection by 7:00 a.m. on the day of collection</li> <li>• Empty containers must be removed from the curb by 8:00 p.m. on collection day</li> <li>• No Collection on statutory and select holidays</li> <li>• Accessibility requirements and collection schedules for collection from multi-residential sites are defined</li> <li>• Defines Garbage Tag requirements and fees</li> <li>• Describes accepted collection containers</li> <li>• Describes proper placement and containment of waste for collection</li> <li>• Describes acceptable wastes (i.e. recyclables, green bin waste, leaf and yardwaste, residual garbage, white goods, scrap metal, medical waste, etc.)</li> </ul>
Regional Waste Management Facilities	<ul style="list-style-type: none"> <li>• Describes acceptable waste for each Waste Management Facility</li> <li>• Includes Code of Conduct for Waste Management Facilities</li> </ul>
IC&I Waste Collection	<ul style="list-style-type: none"> <li>• All IC&amp;I waste will be collected privately unless special arrangements are approved by Regional Council (e.g. potential for full cost recovery institutional partnerships)</li> </ul>
Enforcement	<ul style="list-style-type: none"> <li>• Inspection provisions</li> <li>• Notification procedures</li> <li>• Remedial action taken by the Region in accordance with the Municipal Act</li> <li>• Mechanisms to recover costs for taking remedial action</li> <li>• Penalties for non-compliance</li> </ul>
Defined Schedules	<ul style="list-style-type: none"> <li>• Schedules will be included to:               <ul style="list-style-type: none"> <li>○ Identify acceptable and non-compliant wastes</li> <li>○ Identify curbside collections</li> <li>○ Provide the Diaper/Medical application and guidelines</li> <li>○ Provide the Region's Technical and Risk Management Guidelines for service to private properties</li> </ul> </li> </ul>

**2011 Holiday Collection Schedule**

**TOWN OF AJAX**

- Green Bin, Blue Box and Yard Waste scheduled for **Friday, April 22, 2011 (Good Friday)** will be moved to the next day **Saturday, April 23, 2011**.
- Green Bin and Blue Box scheduled for **Friday, July 1, 2011 (Canada Day)** will be moved to the next day **Saturday, July 2, 2011**.

**CITY OF PICKERING**

- Garbage, Green Bin, Blue Box and Yard Waste scheduled for **Friday, April 22, 2011 (Good Friday)** will be moved to the next day **Saturday, April 23, 2011**.
- Garbage, Green Bin, Blue Box and Yard Waste scheduled for **Friday, July 1, 2011 (Canada Day)** will be moved to the next day **Saturday, July 2, 2011**.

**TOWNSHIPS OF BROCK, SCUGOG, and UXBRIDGE**

- Garbage, Green Bin, Blue Box and Yard Waste scheduled for **Friday, April 22, 2011 (Good Friday)** will be moved to the next day **Saturday, April 23, 2011**.
- Garbage, Green Bin, Blue Box and Yard Waste scheduled for **Friday, July 1, 2011 (Canada Day)** will be moved to the next day **Saturday, July 2, 2011**.

**MUNICIPALITY OF CLARINGTON**

- Green Bin, Blue Box and Yard Waste scheduled for **Friday, April 22, 2011 (Good Friday)** will be moved to the next day **Saturday, April 23, 2011**.
- Green Bin and Blue Box scheduled for **Friday, July 1, 2011 (Canada Day)** will be moved to the next day **Saturday, July 2, 2011**.

**TOWN OF WHITBY & CITY OF OSHAWA**

In the event of a Holiday, a “day shift” schedule is enacted as follows:

- **Monday, January 3, 2011** - regular collection day
- **Monday, February 21, 2011 (Family Day)** - all waste collection will shift one day forward (i.e. Monday to Tuesday and so on...)
- **Friday, April 22, 2011 (Good Friday)** - all waste collection will shift one day forward (i.e. Friday collection moved to the next day Saturday, April 23, 2011)
- **Monday, April 25, 2011 (Easter Monday)**
- **Monday, May 23, 2011 (Victoria Day)**
  - all waste collection will shift one day forward (ie. Monday to Tuesday and so on...)
- **Friday July 1, 2011 (Canada Day)** – all waste collection will shift one day forward (i.e. Friday collection moved to the next day Saturday, July 2, 2011)
- **Monday, August 1, 2011 (Civic Day)**

- **Monday, September 5, 2011 (Monday Day)**
- **Monday, October 10, 2011 (Thanksgiving Day)**
  - all waste collection will shift one day forward (i.e. Monday to Tuesday and so on...)
- **Friday, December 23, 2011 - regular collection day**
- **Monday, December 26, 2011 (Boxing Day)**
  - all waste collection will shift one day forward (i.e. Monday to Tuesday and so on...)

TABLE 1												
REGION OF DURHAM												
TONNES OF RESIDENTIAL WASTE MANAGED												
Descriptions	Curbside Garbage	Apartment Garbage	Bulky/Other Goods	Curbside Recycling	Apartment Recycling	Food Composting	Leaf & Yard Composting	Composter Credits	Grasscycling Credits	Reuse Programs	Total Waste	Waste Diversion
1 Curbside & multi-residential wastes												
Pickering	11,274	1,019	232	7,276	188	4,424	3,245	791	649	2	29,100	57%
Ajax	12,570	1,603	267	8,071	174	5,652	3,154	679	631	1	32,802	56%
Whitby	12,938	2,729	575	10,467	402	6,545	4,750	1,136	950	0	40,492	60%
Oshawa	18,216	8,095	201	11,591	1,372	5,627	5,888	1,624	1,178	0	53,791	51%
Clarington	10,767	19	320	6,765	0	3,305	2,726	613	545	31	25,091	56%
Scugog	2,856	217	64	1,751	0	833	706	312	141	18	6,899	55%
Uxbridge	2,817	125	68	1,674	0	821	684	257	137	22	6,604	54%
Brock	1,760	0	105	1,177	0	386	275	143	55	16	3,917	52%
sub-totals	73,198	13,808	1,834	48,772	2,136	27,593	21,427	5,554	4,285	90	198,696	55%
		88,839			50,908		49,020		9,839			
2 Regional waste disposal sites												
Oshawa	0	0	12,655	433	0	0	1,280	0	0	3,820	18,188	30%
Port Perry	0	0	4,123	194	0	0	368	0	0	1,419	6,103	32%
Pickering	0	0	0	0	0	0	0	0	0	197	197	100%
Brock	0	0	2,382	75	0	0	0	0	0	466	2,923	19%
MRF	0	0	0	0	0	0	0	0	0	23	23	100%
sub-total	0	0	19,161	702	0	0	1,647	0	0	5,925	27,435	30%
3 Special Events												
HHW	0	0	0	0	0	0	0	0	0	50	50	100%
E-Waste	0	0	0	0	0	0	0	0	0	81	81	100%
sub-total	0	0	0	0	0	0	0	0	0	131	131	100%
4 Summary												
municipal residents	73,198	13,808	1,834	48,772	2,136	27,593	21,427	5,554	4,285	90	198,696	55%
Regional waste sites	0	0	19,161	702	0	0	1,647	0	0	5,925	27,435	30%
Special Events	0	0	0	0	0	0	0	0	0	131	131	100%
sub-total	73,198	13,808	20,995	49,474	2,136	27,593	23,074	5,554	4,285	6,145	226,262	
Total Tonnes, with credits		108,000			51,609		50,667		9,839	6,145	226,262	
Total Tonnes, managed												
		108,000			51,609		50,667			6,145	216,422	
Percentages of Total												
	32%	6%	10%	22%	1%	12%	10%	2%	2%	3%	100%	
Waste diversion rate												
	52%										February 17, 2011	

**DETAILED REPORT AVAILABLE ON ATTACHED CD:**

- SECTION 1:** Durham Solid Waste Management Best Practices: Sustainability
- SECTION 2:** Regional 2011 Solid Waste Management Budget and Property Tax Rates
- SECTION 3:** Multi-year Planning: Progressing from 50 to 70 Per Cent Diversion
- SECTION 4:** Disposal: the Solid Waste Landfill Remediation Program
- SECTION 5:** Conclusion

**APPENDICES**

- APPENDIX 1:** Technical and Risk Management Guidelines for waste Collection Services on Private Property
- APPENDIX 2:** Report 2010-WR-9, "Towards 70 Per cent Diversion: Municipal Hazardous or Special Waste and Waste Electronic and Electrical Waste Funding from Stewardship Ontario and Ontario Electronic Stewardship"
- APPENDIX 3:** Report 2009-WR-5 "Moving Towards a 70 Per Cent Diversion Target for Municipal Solid Waste"